

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 B60R21/01

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 B60R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 199 903 B1 (RUDOLF HARALD ET AL) 13 March 2001 (2001-03-13) column 3, line 13 - line 56; figures	1-6
A	DE 101 55 663 A (BAYERISCHE MOTOREN WERKE AG) 22 May 2003 (2003-05-22) the whole document	1
A	WO 01/54952 A (SIEMENS AUTOMOTIVE CORP LP) 2 August 2001 (2001-08-02) page 2, line 2 - line 13; figures	1
A	US 6 324 454 B1 (OBATA YUJIRO ET AL) 27 November 2001 (2001-11-27) column 1, line 26 - column 3, line 14; figures	1
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

20 October 2004

Date of mailing of the international search report

28/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Daehnhardt, A

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	& PATENT ABSTRACTS OF JAPAN vol. 2000, no. 11, 3 January 2001 (2001-01-03) & JP 2000 219098 A (TOYOTA MOTOR CORP), 8 August 2000 (2000-08-08) cited in the application abstract; figures	
A	US 6 170 864 B1 (FUJISHIMA HIROMICHI ET AL) 9 January 2001 (2001-01-09) column 2, line 22 - column 3, line 50; figures	1
A	& PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11, 30 September 1998 (1998-09-30) & JP 10 152014 A (TOYOTA MOTOR CORP), 9 June 1998 (1998-06-09) cited in the application abstract; figures	
A	WO 02/28688 A (TOYOTA MOTOR CO LTD ; MIYATA YUJIRO (JP); IMAI KATSUJI (JP); IYODA MOT) 11 April 2002 (2002-04-11) page 2, line 4 - page 13, line 19; figures	1
A	& PATENT ABSTRACTS OF JAPAN vol. 2002, no. 08, 5 August 2002 (2002-08-05) & JP 2002 104130 A (TOYOTA MOTOR CORP), 10 April 2002 (2002-04-10) cited in the application abstract; figures	

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/011392

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6199903	B1	13-03-2001	DE 19816989 A1	04-11-1999
			DE 59908056 D1	29-01-2004
			EP 0950582 A2	20-10-1999
			ES 2212406 T3	16-07-2004
			JP 3141200 B2	05-03-2001
			JP 11342826 A	14-12-1999
DE 10155663	A	22-05-2003	DE 10155663 A1	22-05-2003
			WO 03042005 A1	22-05-2003
			EP 1444116 A1	11-08-2004
WO 0154952	A	02-08-2001	EP 1263627 A2	11-12-2002
			JP 2003520734 T	08-07-2003
			WO 0154952 A2	02-08-2001
			US 6540255 B1	01-04-2003
US 6324454	B1	27-11-2001	JP 3346472 B2	18-11-2002
			JP 2000219098 A	08-08-2000
			EP 1026052 A2	09-08-2000
US 6170864	B1	09-01-2001	JP 3333813 B2	15-10-2002
			JP 10152014 A	09-06-1998
			DE 19751336 A1	04-06-1998
			JP 3452012 B2	29-09-2003
			JP 2000168490 A	20-06-2000
			JP 3452013 B2	29-09-2003
			JP 2000168491 A	20-06-2000
			JP 3452014 B2	29-09-2003
			JP 2000168492 A	20-06-2000
			US 6347268 B1	12-02-2002
WO 0228688	A	11-04-2002	JP 3487279 B2	13-01-2004
			JP 2002104130 A	10-04-2002
			BR 0114298 A	29-07-2003
			CA 2423274 A1	11-04-2002
			CN 1468180 T	14-01-2004
			EP 1322499 A1	02-07-2003
			WO 0228688 A1	11-04-2002
			US 2004011580 A1	22-01-2004